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ARNOLD & PORTER LLP

By: /Kathi D. Moore/
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:		Confirmation No.:	8486
Bronislava GEDULIN *et al.*		Examiner:	Randall O. Winston
Appln. No.:	10/671,304	Art Unit:	1655
Filed:	September 24, 2003	Atty. Docket:	0101US-UTL-0 / 18528.643

For: Treatment of Pancreatitis with Amylin

APPELLANTS' BRIEF

Mail Stop **Appeal Brief – Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

Further to the Notice of Appeal filed on May 25, 2007 for the above-captioned application, Appellants submit this Brief on Appeal.

Authorization is hereby given to charge the statutory fee of $500.00 for filing Appellants' Brief to counsel's Deposit Account No. 50-2387, referencing docket number 18528.643. In the event that extensions of time beyond those petitioned for herewith are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned. Applicants do not believe any additional fees are due in conjunction with this filing. However, if any additional fees are required in the present application, including any fees for extensions of time, then the Commissioner is hereby authorized to charge such fees to Arnold & Porter LLP Deposit Account No. 50-2387, referencing docket number 18528.643.

1. Real Party in Interest

The real party in interest is Amylin Pharmaceuticals, Inc., a Delaware corporation with offices at 9360 Towne Centre Drive, San Diego, California 92121.

2. Related Appeals and Interferences

Appellants have not identified any related appeals or interferences that would have a bearing on the Board's decision in the present appeal.

3. Status of Claims

Claims 1-22 are pending, of which 1-20 are under consideration and 21-22 are withdrawn. New Claims 23-26 were not entered, and are not under consideration in the present application.

It is noted that the Advisory Action mailed July 6, 2007 and Non-Final Office Action mailed June 14, 2006 also indicated Claim 17 as withdrawn from consideration. However, the Final Office Action mailed January 25, 2007 indicates, to the contrary, that Claim 17 is directed to the species, ^{25,28,29}Pro-h-amylin, which was allegedly elected in response to the Election of Species Requirement[1]. As such, Applicants respectfully submit that Claim 17 is properly under consideration in the present application. Further, it is submitted that Claim 1-8 and 12-20 are generic with respect to the elected species of "amylin analog", and includes ^{25,28,29}Pro-h-amylin of Claim 17. It is submitted that the amylin analog species of withdrawn claims 21-22 should therefore be rejoined upon indication of an allowable generic claim.

Claims 1-16 and 18-20 stand finally rejected under 35 U.S.C. § 112, first paragraph as lacking enablement. Claims 1-16 and 18-20 stand finally rejected under 35 U.S.C. § 103(a) as obvious.

Appellant appeals each of these rejections of the claims under 35 U.S.C. §§ 112, first paragraph, and 103(a).

[1] In response to the Election of Species requirement, Applicants elected the species of "amylin analog," which includes the ^{25,28,29}Pro-h-amylin species of Claim 17.

4. Status of Amendments

Appellants filed an Amendment on April 25, 2007, subsequent to the Final Office Action mailed January 25, 2007. However, the Examiner issued an Advisory Action on July 6, 2007 denying entry of the amendment. That Amendment After Final did not seek to modify any of Claims 1-22, but did seek entry of New Claims 23-26. However, New Claims 23-26 have not been entered and are not under consideration in the present application.

No amendments have been submitted for consideration or entered subsequent to the filing of the Notice of Appeal on May 25, 2007.

5. Summary of the Claimed Subject Matter

The claimed invention relates to the use of amylin and amylin analogs with amylin agonist activity, in the treatment or the improvement of the treatment of pancreatitis. As explained in the specification, in certain aspects, amylin's observed effects on reducing pancreatic enzyme and gastric acid secretion are rapid, with the onset being several minutes. The therapeutic effect of these actions is important in the prevention of damage (hemorrhage and necrosis) to pancreatic acinar cells and to the prevention of pancreatic edema. The therapeutic effect of amylin is also important in preventing the inflammatory response of the pancreas, which results in the appearance of pancreatic exudate with toxins and pancreatic enzymes in retroperitoneum as well as the presence of pancreatic toxins and enzymes in the systemic circulation. By preventing this cascade, the pain associated with pancreatitis may be lowered.

Use of an amylin or an agonist/analog thereof in the treatment of pancreatitis in certain aspects of the invention has the unexpected benefit of simultaneously reducing pancreatic enzyme levels associated with the disease and relieving the pain associated with the disease. This is due to the presence of the pancreatitis alleviating activity being simultaneously present with the analgesic activity of amylin. See, *e.g.*, published specification, para. **[0072]**, **[0073]**, examples I and II, *etc.*

Any suitable amylin or amylin analog with amylin agonist activity may be useful in the invention, *e.g.*, useful as agents to treat pancreatitis or improve the treatment thereof, *etc.* Particular considerations for identifying amylin compounds useful in the methods of the present invention are discussed in further detail in the specification, *e.g.*, at para. **[0028]**-**[0069]**, example III, *etc.*

A. Independent Claim 1

Independent claim 1 sets forth a method of treating pancreatitis in a mammalian subject. See, *e.g.*, *id.* at para. **[0024]**. The claimed method generally comprises administering to the subject an effective amount (see, *e.g.*, *id.* at para. **[0072]**), of an amylin or an amylin analog, wherein the amylin analog has amylin agonist activity (see, *e.g.*, *id.* at para. **[0026]-[0028]**).

B. Independent Claim 14

Independent claim 14 sets forth a method of improving a treatment for pancreatitis in a mammalian subject. See, *e.g.*, *id.* at para. **[0017]**. The claimed method generally comprises administering to the subject an amylin or an amylin analog in addition to an agent or regimen used to treat pancreatitis (see, *e.g.*, *id.* at para. **[0020], [0105]-[0106]**), wherein the amylin analog has amylin agonist activity (see, *e.g.*, *id.* at para. **[0026]-[0028]**).

6. Grounds of Rejection to be Reviewed on Appeal

1. Whether claims 1-16 and 18-20 are unpatentable under 35 U.S.C. § 112, first paragraph as lacking enablement.

2. Whether claims 1-16 and 18-20 are unpatentable under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,677,279 to Young *et al.* (hereinafter "Young"), in view of U.S. Patent No. 5,196,402 to Braganza *et al.* (hereinafter "Braganza") and U.S. Patent No. 4,370,317 to Jorgensene *et al.* (hereinafter "Jorgensene").

7. Argument

A. Rejection Under 35 U.S.C. § 112, First Paragraph, Enablement

Claims 1-16 and 18-20 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly lacking enablement commensurate in scope with the claims. Reversal of this rejection is respectfully requested.

In rejecting the claims, the Examiner acknowledges that the specification is enabling for a method of treating pancreatitis and/or relieving the pain caused by pancreatitis in a mammalian subject comprising administering to said subject an effective amount of the amylin analog ^{25,28,29}Pro-h-amylin. However, in support of the rejection, the Examiner asserts that the specification "does not enable any person in the art for preparing a method for treating pancreatitis and/or relieving pain caused by pancreatitis comprising administering all amylin analogs." *Office Action mailed January 25, 2007* ("Final Office Action") at pages 3-4

Applicants respectfully traverse for at least the reasons which follow. Initially, it is submitted that the Examiner has not met the evidentiary burden to impose an enablement rejection for failure to enable one of skill to use the invention. A specification that discloses how to make and use a claimed invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented "must be taken as in compliance with the enabling requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein." *In re Brana*, 51 F.3d 1560, 1566, 34 U.S.P.Q.2d 1436, 1441 (Fed. Cir. 1995) (*quoting In re Marzocchi*, 439 F.2d 220, 223, 169 U.S.P.Q. 367, 369 (CCPA. 1971) (emphasis in original)).

Further, in rejecting the claims at issue, the Examiner asserts that the specification does not teach a method of treating pancreatitis and/or relieving the pain caused by pancreatitis by administering all amylin analogues to subjects. *Final Office Action* at pages 4-5. It is submitted that Applicants are not required to make such a showing under the correct legal standard. There is no requirement to provide **all** of the ways that the claimed invention can be practiced. *MPEP* § 2164.01(b). The enablement requirement is satisfied as long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim. *Id.* Applicants have satisfied this requirement by providing methods of treating pancreatitis by administering representative amylin compounds to representative subjects in connections with adequate methodologies to identify additional amylin compounds that are suitable for use in the claims, commensurate in scope with the claims. See, *e.g.*, *Specification*, at para. **[0028]-[0069]**, Table 1; and Examples I -III, *etc.*

It is noted that the claims are drawn to novel methods of using a class of amylin compounds. The specification demonstrates that specific amylin compounds will have specific pharmacological activity. Applicants have defined a genus of amylin compounds particularly useful in the claimed methods, i.e., amylin and amylin analogs, wherein the amylin analogs have amylin agonist activity. Further, the specification has provided detailed guidance with regard to testing methodologies for identifying and confirming the pharmacological activity of amylin compounds within the scope of the recited genus. In this regard, the law provides that experimentation is not necessarily undue even if it is complex, if the art typically engages in such experimentation. *See In re Certain Limited-Charge Cell Culture Microcarriers*, 221 U.S.P.Q.

1165, 1174, (Int'l Trade Comm'n 1983) *aff'd. sub nom., Massachusetts Institute of Technology v. A.B. Fortia*, 774 F.2d 1104, 227 U.S.P.Q. 428 (Fed. Cir. 1985); *Falkner v. Inglis*, 448 F.3d 1357, 1365 (Fed. Cir. 2006).

More specifically, Applicants have provided ample direction and guidance, and have presented numerous examples of compounds suitable within the context of the claimed pharmacological effects (see, e.g., specification at paras. **[0028]-[0058]**, as well as methodologies for identifying additional suitable compounds, *e.g.*, compounds that bind the nucleus accumbens receptor binding assay, compounds active in the soleus muscle assay, *etc.*, such that it is well within the level of ordinary skill in the art to practice the invention without undue experimentation. *See* Specification, for example, paras. **[0065]-[0069]**, examples I-III, *etc.*

For instance, given the knowledge in the art, and based on the guidance provided in the specification regarding methodologies for determining whether an amylin compound elicits a claimed pharmacological activity, additional amylin compounds can be identified within the context of the present claims without the need for undue experimentation. The Examiner has not provided sufficient evidence to cast doubt on the guidance provided in the specification in this regard. Rather, the Examiner has focused strictly on the number of working examples and jumped to a conclusion that the working examples provided do not adequate guide on the instantly claimed invention.

Accordingly, for at least these reasons, it is submitted that the claims are sufficiently enabled under 35 U.S.C. § 112, first paragraph, and reversal of this rejection is respectfully requested.

1. *Dependent Claims 9-11*

The Examiner has acknowledged that the specification is enabling for a method of treating pancreatitis and/or relieving the pain caused by pancreatitis in a mammalian subject comprising administering to said subject an effective amount of the amylin analog ^{25,28,29}Pro-h-amylin. *Final Office Action* at pages 3-4. In this regard, dependent Claims 9-11 recite various methods wherein the amylin compound is ^{25,28,29}Pro-h-amylin. As the Examiner acknowledges, "Applicant has reasonably demonstrated on pages 24-30 (examples 1-3, especially example 2) of the specification a method of treating pancreatitis and/or relieving the pain caused by pancreatitis

in a mammalian subject comprising administering to said subject an effective amount of the amylin analog of ^{25,28,29}Pro-h-amylin. Surely, based on these acknowledged working examples, those of skill in the art would be able to practice the invention claimed in at least dependent Claims 9-11 without the need for undue experimentation.

As such, for at least this additional reason, Applicants respectfully submit that at least dependent Claims 9-11 are sufficiently enabled under 35 U.S.C. § 112, first paragraph, and reversal of this rejection is respectfully requested.

B. Rejection Under 35 U.S.C. § 103(a)

Claims 1-16 and 18-20 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Young in view of Braganza and Jorgensene. Reversal of this rejection is respectfully requested.

The Supreme Court recently addressed the issue of obviousness in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). The Court stated that the *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1 (1966), factors still control an obviousness inquiry. Those factors are: 1) "the scope and content of the prior art"; 2) the "differences between the prior art and the claims"; 3) "the level of ordinary skill in the pertinent art"; and 4) objective evidence of nonobviousness. *KSR*, 127 S. Ct. at 1734 (quoting *Graham*, 383 U.S. at 17-18). While the *KSR* Court rejected a rigid application of the teaching, suggestion, or motivation ("TSM") test in an obviousness inquiry, the Court acknowledged the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does" in an obviousness determination. *KSR*, 127 S. Ct. at 1731.

In this regard, "[r]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning **with some rational underpinning** to support the legal conclusion of obviousness." *KSR,* 127 S.Ct. at 1741 (quoting *In re Kahn* 441 F.3d 977, 988 (Fed. Cir. 2006) (emphasis added). Further, as the *KSR* Court recognized, "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." *KSR*, 127 S. Ct. at 1732. In such circumstances, "the fact that a combination was obvious to try might show that it was obvious under § 103." *Id.* However, the prior art must still suggest a **predictable** outcome to establish a

prima facie case of obviousness. See, *e.g.*, *Takeda Chemical Industries, Ltd v. Alphapharm Pty., Ltd.*. --- F.3d ----, 2007 WL 1839698, 83 U.S.P.Q.2d 1169 (Fed. Cir. 2007).

For at least the reasons discussed below, reversal of this rejection is respectfully requested.

1. *Claim 1 and those Dependent Therefrom*

Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness. In rejecting the claims at issue, the Examiner alleges that Young teaches that the amylin analog ^{25,28,29}Pro-h-amylin and an analgesic treats painful disorders, and that Braganza teaches that pancreatitis is a painful disorder. Based on such disclosures, the Examiner jumps to the conclusion that it would have been *prima facie* obvious to treat pancreatitis with the amylin analog of Young based on the teaching of Braganza. Specifically, the Examiner alleges "when the same amylin analog as the claimed invention's analog of 25,28,29 Pro-h-amylin in combination with an analgesic are administered to a mammalian subject for treating pain, it would intrinsically treat the painful disorder of pancreatitis within a mammalian subject when treating the pain." *Final Office Action* at page 6. Applicants respectfully traverse.

Independent Claim 1 and those dependent therefrom, are directed to methods of treating pancreatitis by administering an effective amount of an amylin compound, *i.e.*, an amount of an amylin compound effective to treat pancreatitis, to a subject. "Treating" is defined in the published specification at **[0025]** as alleviating the molecular, biological and clinical effects of the disease of pancreatitis, for example, inhibiting or reducing the level of inflammation, enzymatic activity or enzymatic secretion in pancreatic cells. Whatever else those skilled in the art may have taken from the Young and Braganza (or in further view of Jorgensen[2]), there is no **reasonable expectation of success** in combining the references so as to arrive at the presently claimed method. The cited references do not provide a **predicable solution** for **treating pancreatitis**. Although the cited references allude to pancreatitis as a "painful" condition, and teach the general analgesic properties of amylin compounds, there is no teaching or suggestion of the general ability of analgesic compound to actually **treat pancreatitis** in the citations provided.

[2] Jorgensene is stated to disclose that pancreatin, an extract from the pancreas of animals that contains pancreatic enzymes, treats pancreatitis. See *Non-Final Office Action mailed June 14, 2006* at page 5.

Rather, Braganza teaches the treatment of pancreatitis with S-adenosyl-methionine alone, and as a synergistic agent of cyclosporin in the prevention of graft rejection in pancreas transplantation. However, neither of the uses of S-adenosyl-methionine is disclosed as being useful due to analgesic or pain-reduction mechanisms of action. Based on these teachings, one of skill in the art would simply have no articulated reason with any rational underpinning to expect all compounds with a general analgesic effect to effectively treat pancreatitis with any reasonable expectation of success, much less amylin compounds specifically. More particularly, the Examiner has provided no objective reasoning as to why one skilled in the art when confronted with the universe of all possible analgesic compounds would be directed to specifically select amylin or an amylin analog having agonist activity. None of the cited references make any reference to or suggestion of the ability of amylin compounds to treat pancreatitis directly. In this regard, there would be no reasonable expectation that administration of amylin compounds would necessarily result in treatment of pancreatitis based merely on an observed analgesic effect. In any event, the claims are specifically directed to the treatment of pancreatitis, and require the administration of an effective amount of the amylin compound, *i.e.*, an amount effective to treat pancreatitis, to the subject.

In construing the claims, the Examiner has apparently equated treatment of pancreatitis with providing analgesia. This construction of the claims by the Examiner is contrary to the doctrine of claim interpretation. The doctrine of claim differentiation is "based on the common sense notion that different works or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." *Karlin Tech. Inc. v. Surgical Dynamics, Inc,* 177 F.2d 968, 971-72 (Fed. Cir. 1999). Claim 3, which ultimately depends from claim 1, provides that the method "simultaneously treats pancreatitis and the pain associated therewith." See also published specification, para **[0072]** and **[0073]**. If, as under the Examiner's apparent claim construction, providing analgesia is synonymous with treating pancreatitis then Claim 3 is redundant. In accordance with the doctrine of claim differentiation, the separation of treating pancreatitis and alleviating pain associated with pancreatitis in both the claims and the specification require a claim construction different from that used by the Examiner to support the present rejection.

For at least these reasons, independent Claim 1 and the claims dependent therefrom are believed to be patentable over the prior art of record, and reversal of this rejection is respectfully requested.

2. *Dependent Claim 3 and Those Dependent Therefrom*

Claim 3 and those claims dependent therefrom are believed to be patentable for at least the reasons discussed above. In addition, these claims clarify that the amylin compound simultaneously treats pancreatitis and the pain associated therewith. As discussed above, the cited references do not teach or suggest the ability of amylin compounds to treat pancreatitis directly, and do not provide any reasonable expectation of success with regard to the use of compounds with general analgesic effects in the treatment of pancreatitis.

For at least this additional reason, dependent Claim 3 and the claims dependent therefrom are believed to be patentable over the prior art of record, and reversal of this rejection is respectfully requested.

3. *Dependent Claims 4 and 5*

Claims 4 and 5 are believed to be patentable for at least the reasons discussed above. In addition, these claims recite that the subject has been diagnosed with pancreatitis. As such, these claims serve to further highlight the requirements of the claims with regard to the treatment of pancreatitis directly in subjects which have been diagnosed with pancreatitis. In this regard, the claims highlight the difference between the claimed methods and those of incidental treatment through administration of the recited amylin compounds to subjects that *may* have had pancreatitis, but were not being administered the recited amylin compounds for purposes other than treatment of pancreatitis (i.e., for analgesic purposes alone).

For at least this additional reason, dependent Claims 4 and 5 are believed to be patentable over the prior art of record, and reversal of this rejection is respectfully requested.

4. *Independent Claim 14 and Those Dependent Therefrom*

Independent Claim 14 and those claims dependent therefrom are directed to methods of improving a treatment for pancreatitis by administering an amylin compound in addition to an agent or regimen used to treat pancreatitis. As discussed above, the cited prior art does not teach or suggest the ability of all compounds with general analgesic properties to directly treat pancreatitis, much less the ability of amylin compounds specifically to directly treat pancreatitis.

Likewise, the cited prior art is silent with regard to the ability of all analgesic compounds, or amylin compounds specifically, to improve the actual, direct treatment of pancreatitis. Absent a recognition of the ability of amylin compounds in this regard, one of skill would simply not have a reasonable expectation of success in improving the treatment of pancreatitis by administering amylin compounds in addition to an agent or regimen used to treat pancreatitis based on the teachings of the cited art.

As explained in the specification, it was discovered in the context of the present invention that the recited amylin compounds have the unexpected benefit of simultaneously reducing pancreatic enzyme levels associated with pancreatitis and relieving the pain associated with the disease. As such, in accordance with the present invention, it was discovered that the recited amylin compounds are able to improve the treatment of pancreatitis not only through their analgesic activity, but also through direct pancreatitis alleviating activity. Such an ability was not recognized or suggested in the cited references. Absent such a suggestion, it is submitted that the cited references do not provide a **predicable solution** for directly improving the treatment pancreatitis.

Again, for at least these reasons, one of skill in the art would not look to modify the teachings of Young with Braganza, or further in view of Jorgensen, so as to arrive at the presently claimed invention. Independent Claim 14 and those claims dependent therefrom are believed to be patentable over the prior art of record, and reversal of this rejection is respectfully requested.

For at least these reasons, all of the claims are believed to be patentable over the cited art, and reversal of the rejection is respectfully requested.

CONCLUSION

Appellant believe that the above discussion is fully responsive to all grounds of rejection set forth for the application. Please deduct the requisite fee of $500 pursuant to 37 C.F.R. § 1.17(c) from Deposit Account No. 50-2387 and any additional fees that may be due in association with the filing of this Brief.

In particular, it is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in the documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of

this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account Number 50-2387, referencing docket number 18528.643. Applicants likewise authorize a charge to Deposit Account Number 50-2387 for any other fees related to the present application that are not otherwise provided for in the accompanying documents.

In view of the foregoing, it is respectfully requested that the Board of Patent Appeals and Interferences reverse the outstanding rejections of the claims, and that the subject application be allowed forthwith.

Respectfully submitted,

Date: August 24, 2007

/Milan M. Vinnola/
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CLAIMS APPENDIX

1. (Previously presented) A method of treating pancreatitis in a mammalian subject comprising administering to said subject an effective amount of an amylin or an amylin analog, wherein the amylin analog has amylin agonist activity.

2. (Previously presented) The method of claim 1 wherein pain caused by pancreatitis in said mammalian subject is relieved.

3. (Previously presented) The method of claim 2 wherein administration of the effective amount of said amylin or amylin analog simultaneously treats pancreatitis and the pain associated therewith.

4. (Previously presented) The method of claim 2 wherein said subject has been diagnosed with pancreatitis.

5. (Previously presented) The method of claim 3 wherein said subject has been diagnosed with pancreatitis.

6. (Previously presented) The method of claim 1 wherein said subject is a human.

7. (Previously presented) The method of claim 2 wherein said subject is a human.

8. (Previously presented) The method of claim 3 wherein said subject is a human.

9. (Previously presented) The method of claim 1 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

10. (Previously presented) The method of claim 2 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

11. (Previously presented) The method of claim 3 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

12. (Previously presented) The method of claim 2 further comprising administering to said subject an analgesic.

13. (Previously presented) The method of claim 3 further comprising administering to said subject an analgesic.

14. (Previously presented) A method of improving a treatment for pancreatitis in a mammalian subject comprising administering to said subject an amylin or an amylin analog in addition to an agent or regimen used to treat pancreatitis, wherein said amylin analog has amylin agonist activity.

15. (Previously presented) The method of claim 14 wherein said agent is clinically used to treat pancreatitis.

16. (Previously presented) The method of claim 14 wherein said subject is a human.

17. (Previously presented) The method of claim 14 wherein said amylin analog is ^{25,28,29}Pro-h-amylin.

18. (Previously presented) The method of claim 14 further comprising administering to said subject an analgesic.

19. (Previously presented) The method of claim 14 wherein the agent is a pancreatic enzyme.

20. (Previously presented) The method of claim 14 wherein the regime includes a low-fat diet.

21. (Withdrawn) The method of claim 1 wherein said amylin analog has the amino acid sequence: $^{1}A_1$-X-Asn-Thr-^{5}Ala-Thr-Y-Ala-Thr-^{10}Gln-Arg-Leu-B_1-Asn-^{15}Phe-Leu-C_1-D_1-E_1-$^{20}F_1$-G_1-Asn-H_1-Gly-$^{25}I_1$-J_1-Leu-K_1-L_1-^{30}Thr-M_1-Val-Gly-Ser-^{35}Asn-Thr-Tyr-Z (SEQ ID NO:2) wherein

A_1 is Lys, Ala, Ser or hydrogen;

B_1 is Ala, Ser or Thr;

C_1 is Val, Leu or Ile;

D_1 is His or Arg;

E_1 is Ser or Thr;

F_1 is Ser, Thr, Gln or Asn;

G_1 is Asn, Gln or His;

H_1 is Phe, Leu or Tyr;

I_1 is Ala or Pro;

J_1 is Ile, Val, Ala or Leu;

K_1 is Ser, Pro, Leu, Ile or Thr;

L_1 is Ser, Pro or Thr;

M_1 is Asn, Asp, or Gln;

X and Y are independently selected amino acid residues having side chains which are chemically bonded to each other to form an intramolecular linkage; and Z is amino, alkylamino,

dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy, or aralkyloxy; and provided that when

(a) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Phe, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Ser, and M_1 is Asn;

(b) A_1 is Lys, B_1 is Ala, C_1 is Ile, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(c) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Thr, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(d) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Pro, L_1 is Pro, and M_1 is Asn;

(e) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Asn, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Ser, L_1 is Pro, and M_1 is Asn; or

(f) A_1 is Lys, B_1 is Thr, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is His, H_1 is Leu, I_1 is Ala, J_1 is Ala, K_1 is Leu, L_1 is Pro, and M_1 is Asp; then one or more of A_1 to M_1 is a D-amino acid and Z is not amino.

22. (Withdrawn) The method of claim 14 wherein said amylin analog has the amino acid sequence: $^{1}A_1$-X-Asn-Thr-^{5}Ala-Thr-Y-Ala-Thr-^{10}Gln-Arg-Leu-B_1-Asn-^{15}Phe-Leu-C_1-D_1-E_1-$^{20}F_1$-G_1-Asn-H_1-Gly-$^{25}I_1$-J_1-Leu-K_1-L_1-^{30}Thr-M_1-Val-Gly-Ser-^{35}Asn-Thr-Tyr-Z (SEQ ID NO:2) wherein

A_1 is Lys, Ala, Ser or hydrogen;

B_1 is Ala, Ser or Thr;

C_1 is Val, Leu or Ile;

D_1 is His or Arg;

E_1 is Ser or Thr;

F_1 is Ser, Thr, Gln or Asn;

G_1 is Asn, Gln or His;

H_1 is Phe, Leu or Tyr;

I_1 is Ala or Pro;

J_1 is Ile, Val, Ala or Leu;

K_1 is Ser, Pro, Leu, Ile or Thr;

L_1 is Ser, Pro or Thr;

M_1 is Asn, Asp, or Gln;

X and Y are independently selected amino acid residues having side chains which are chemically bonded to each other to form an intramolecular linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy, or aralkyloxy; and provided that when

(a) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Phe, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Ser, and M_1 is Asn;

(b) A_1 is Lys, B_1 is Ala, C_1 is Ile, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(c) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Thr, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Ala, J_1 is Ile, K_1 is Ser, L_1 is Pro, and M_1 is Asn;

(d) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Pro, L_1 is Pro, and M_1 is Asn;

(e) A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is His, E_1 is Ser, F_1 is Asn, G_1 is Asn, H_1 is Leu, I_1 is Pro, J_1 is Val, K_1 is Ser, L_1 is Pro, and M_1 is Asn; or

(f) A_1 is Lys, B_1 is Thr, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is His, H_1 is Leu, I_1 is Ala, J_1 is Ala, K_1 is Leu, L_1 is Pro, and M_1 is Asp; then one or more of A_1 to M_1 is a D-amino acid and Z is not amino.

23. (Not Entered) The method of claim 1 wherein 0.1 μg to 1 mg of said amylin or said amylin analog is administered to said mammalian subject in a single, divided, or continuous dose.

24. (Not Entered) The method of claim 14 wherein 0.1 μg to 1 mg of said amylin or said amylin analog is administered to said mammalian subject in a single, divided, or continuous dose.

25. (Not Entered) The method of claim 1 wherein about 2 μg to about 8 mg per day of said amylin or said amylin analog is administered to said mammalian subject.

26. (Not Entered) The method of claim 14 wherein about 2 μg to about 8 mg per day of said amylin or said amylin analog is administered to said mammalian subject.

EVIDENCE APPENDIX

NONE

RELATED PROCEEDINGS APPENDIX

NONE